

Restoring Anadromous Fish Habitat in Big Canyon Creek Watershed

**Summary Report
2002**



This Document should be cited as follows:

"Restoring Anadromous Fish Habitat in Big Canyon Creek Watershed", 2002 Summary Report, Project No. 199901500, 7 electronic pages, (BPA Report DOE/BP-00005268-5)

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P.O. Box 3621
Portland, OR 97208

This report was funded by the Bonneville Power Administration (BPA), U.S. Department of Energy, as part of BPA's program to protect, mitigate, and enhance fish and wildlife affected by the development and operation of hydroelectric facilities on the Columbia River and its tributaries. The views in this report are the author's and do not necessarily represent the views of BPA.

Restoring Anadromous Fish Habitat in Big Canyon Creek Watershed

**Mountain Snake Province,
Clearwater Subbasin**

Summary Report 2002

**Performance Period:
January 2002- August 2002**

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**Contract No. 00005268
Project No. 1999-015-00**

November 2002

INTRODUCTION

Nez Perce Soil and Water Conservation District (NPSWCD) developed the *Anadromous Fish Habitat Restoration in the Nichols Canyon Subwatershed* project to assist in the enhancement of anadromous fish natural production in the Big Canyon watershed by improving salmonid spawning and rearing habitats. The project began in 1999.

NPSWCD seeks to assist private, tribal, county, and state landowners in implementing Best Management Practices (BMPs) to reduce nonpoint source pollutants, repair poorly functioning riparian zones, and increase water retention in the Nichols Canyon subwatershed. The project funds coordination, planning, technical assistance, BMP design and installation, monitoring, and educational outreach to identify and correct problems associated with agricultural and livestock activities impacting water quality and salmonid survival. The project provides technical assistance in developing, designing, and installing BMPs as well as to providing financial assistance to landowners for BMPs not funded through other programs. BMP types and extents used in this project were identified in the *Big Canyon Environmental Assessment Plan* (NPSWCD, 1995).

Due to consecutive years of poor agricultural prices, agricultural and livestock producers have limited financial resources for the installation of BMPs. Conservation programs available through federal and state resources provide cost-share for a portion of selected BMP installation. However, cost-share is not available for all of the BMPs needed to improve fisheries habitat. In addition, landowners do not have the financial resources to provide their part of the installation contribution.

This project allows for accelerated land treatment implementation on non-irrigated cropland, Animal Feeding Operations (AFOs), forestland, and riparian areas. This adds to ongoing work to provide resource protection throughout the entire watershed. The project also accelerates implementation of the Idaho agricultural water quality program that addresses Total Maximum Daily Load (TMDL) concerns for the creek. The area was identified as a NPSWCD priority area through a locally led process that uses public input to prioritize resource concerns within the District. The Nichols Canyon Project also meets goals and objectives outlined in the NPSWCD's Five-Year Resource Conservation Plan.

The following objectives and tasks were identified in the project's Statement of Work.

Objective 1: Review project plans and modify when needed.

Task 1.1: Explore use of BPA funds with other funding sources.

When possible, combined the costs of BMP installation with the District's Water Quality Program for Agriculture funding source. Due to cuts in funding the program, such opportunities were curtailed. Worked with Idaho Fish and Game about cost-sharing opportunities for watershed landowners with their Habitat Improvement Program.

Task 1.2: Review and update cost rates and practice types. Practices will include: sediment basins, riparian plantings, grassed waterways culvert erosion controls, terraces, diversions, gully plugs, ponds, livestock off-site watering developments, road erosion control systems, grass seedings, waste management systems, shallow water developments, fencings, and streambank protection.

Updated BMP practice and cost share list.

Task 1.3: Conduct project reviews for BMPs and internal processes. Identify material sources.

Completed project, process, and financial reviews. Identified a potential improvement of erosion materials and proposed to evaluate materials as field trial (see "Discussions" section).

Objective 2: Continue landowner/operator participation in project.

Task 2.1: Solicit for project participation. Make personal contacts and provide additional technical assistance as needed.

One on one meetings with landowners occurred throughout the year to discuss concerns, possibilities, projects, and practices, especially when BMPs were being constructed, and to ensure that BMPs were being maintained at the landowner's own cost. Every landowner/operator with a contract was met with, at the very least, twice. Individual landowners maintain BMPs at their own cost throughout the life of the long-term contract.

Through the conservation planning process and personal contacts, three of the watershed's landowners were involved with a District project to develop a quantitative and qualitative soil health monitoring indicator card which will be used by individuals to evaluate soil health on their land..

Task 2.2: Provide public outreach and information through a quarterly newsletter sent to Big Canyon landowners/operators.

A quarterly newsletter was sent to the landowners and operators in the watershed. The newsletter included articles about project applications, BMP requirements, fish habitat needs, wildlife issues, threatened and endangered species, erosion control issues, and other conservation related topics.

Additional Outreach efforts- At the four day Nez Perce County Fair, an estimated 1,000 people visited the District's educational display booth which focused on improving water quality and improving habitat for fish. The District sponsored a parade float in the local farming community of Culdesac, ID. About 100 people saw the float which focused on improving water quality for fish and included a swimming seven foot long salmon.

Conducted riparian vegetation sessions with Nez Perce Tribe Fisheries Resources Management for about 80 CRITFA Salmon Corps members. Conducted presentations for fifth grade school children from the local town of Craigmont, ID on soil and sediment impacts. Sponsored Sixth Grade Environmental Awareness Days for about 300 students with the Lewiston School District. The focus was all on natural resources including sessions on fish, conservation, crops, and noxious weeds.

About 250 local landowners and producers attended a Direct Seed Drill Demonstration Tour co-sponsored by the District. The tour brought together eleven different direct seed drills to demonstrate their tillage differences (e.g. soil disturbance, capabilities,...). Direct seeding drills assist operators in implementing conservation tillage practices. During the barbecue afterwards, the District presented displays on their fish habitat efforts, noxious weeds, soil health, and alternative livestock watering systems.

Task 2.3: Finalize agreements with landowner/operators. Evaluate applications as received.

Several applications were evaluated. Two landowners participated by signing contracts developed on their places. Another person expanded the scope of his contract.

Objective 3: Finalize details and schedule BMP implementation.

Task 3.1: Complete project designs, layouts (engineering and cultural surveys, flagging, etc), on-site inspections, and cost estimates

Complete as part of Objective 4. See Tasks 4.1 through 4.3.

Task 3.2: Update list of approved contractors for BMP installation.

Several new contractors were evaluated and added to the list.

Task 3.3: Ensure new projects are within scope of existing BA and NEPA documents. If not, modify the documents.

No further NEPA documentation was needed. Cultural resource determination requests were submitted to the State Historic Preservation Officer (SHPO) for all ground disturbing BMPs. Although several BMP project sites required further field visits from an NRCS Cultural Resources coordinator, no projects were adversely impacted. Each landowner's conservation plan addressed and documented compliance with federal and state regulations including threatened and endangered species, wetlands, cultural resources, instream work, and special aquatic sites.

Objective 4: Supervise and inspect installation of BMPs.

Task 4.1 through 4.3: Manage logistics, certify completed projects meet designs and specifications, and provide BMP implementation inspection and documentation as needed.

To NRCS design standards and specification, under this project, designed, supervised installation of, and finalized/ certified completion of approximately 2 acres of critical erosion area grass seedings, 6 water and sediment control basins, 353 tree and shrub plantings in riparian areas, 127 linear feet of channel vegetation plantings, 1 pond lining, and 3 waste management systems for an animal feeding operations including a covered manure storage facility, roof runoff management system, and fencing. Began work on water and sediment control structures, grassed waterways, erosion control material, and livestock offsite watering facility.

In order to address the resource concerns addressed in the lands, management practices are often required in the contracts, but not cost shared. All BMPs installed under this project in previous years were also being maintained at the landowner's expense. Management BMP practices occurred on 2,492 acres of cropland. These practices are to decrease sediment, fertilizer, and pesticide delivery into the streams and to improve water quality and soil health. Cropland management practices include residue management, contour farming, conservation crop rotation, nutrient management, and pest management. Pasture and grazing management practices occurred on 182 acres. Upland wildlife habitat management occurred on 375 acres, and wetland habitat management on 2 acres. Currently, a total of 4,000 acres are under contract within the subwatershed.

Objective 5: Project Monitoring

Task 5.1: Complete BMP monitoring activities. Conduct, collect data, and document monitoring.

Annual status reviews were conducted on all BMPs under landowner contracts. Their purpose was to qualitatively evaluate BMP condition, effectiveness, and maintenance. These evaluations acted as a means of trend monitoring. Quantitative measurements were taken when appropriate. Examples of quantitative measurements include measurements of gullies caused by concentrated flows, field crop residue measurements, or planting success rates. Annual BMP inspections provided landowners with ongoing technical assistance and assured that landowners were complying with their BMP operation and maintenance plans. The reviews also provided a means to talk with landowners about specific resource or project concerns and to provide additional outreach and technology transfer.

Coordinated stream temperature monitoring efforts with Nez Perce Tribe, Idaho Department of Water Quality, and Idaho Soil Conservation Commission. Maintained seven stream temperature collection sites in the watershed including in and/or near Post Hole, Nichols Canyon, Bear Creek, and mainstem Big Canyon.

Task 5.2: Complete multi-layered riparian survey.

This task was not completed.

Objective 6: Documentation and report preparation

Task 6. 1: Prepare accounting statements for reimbursement from BPA.

Completed.

Task 6.2: Collect monitoring data. Prepare quarterly project status reports.

Temperature data collected. Reports submitted

DISCUSSION

Proposed a field trial in conjunction with the landowner, a local contractor, and NRCS to evaluate a potential erosion protection material. The field trial determine if a bonded fiber matrix (BFM) erosion prevention material could be applied in waterways instead of the considerably more expensive mulch and netting erosion control blanket material currently used. BFM has been used primarily to reduce erosion on roadsides, but it has not been utilized as an agricultural BMP for critical area erosion, such as in the concentrated flow areas of grassed waterways. Due to the slopes of much of the area's land, the success of grassed waterways is greatly increased when an erosion protection material is applied to the newly installed waterways. The BFM material is scheduled to be applied in october 2002.

CONCLUSIONS

This project/contract was proposed and accepted as a three-year contract. Several of the tasks, such as the riparian assessment and BMP installation have been rolled over into the new project/contract.

NPSWCD will also continue coordination and cooperation with several local, state, and federal agencies in the Big Canyon watershed including NRCS, NAOO-Fish, US Forest Service, BLM, Idaho Department of Fish & Game, Idaho Department of Environmental Quality, Idaho Department of Lands, Nez Perce Tribe, Idaho Soil Conservation Commission, Idaho Department of Corrections, City of Peck, Nez Perce County Commissioners, and other Conservation Districts.